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# The Emerging Republic of Korea Navy—A Japanese Perspective

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# THE EMERGING REPUBLIC OF KOREA NAVY

## A Japanese Perspective

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On 21 May 1997 the author, then director of the Policy, Plans, and Programs Division, in the Maritime Staff Office of the Japan Maritime Self-Defense Force, attended a preparatory meeting for proposed navy-to-navy staff talks for the exchange of opinions on various maritime and naval subjects with the Republic of Korea Navy. My counterpart at this meeting, which was held at a navy facility in Taejung, in the central region of the Republic of Korea, was the Naval Policy Director of ROKN\* Headquarters.

Navy-to-navy talks symbolize military exchanges between countries. The JMSDF has had such talks with the U.S. Navy, an allied partner, for a long time and also with the United Kingdom's Royal Navy, regarded as a "father" of modern navies. During the mid-1990s the JMSDF began to have such talks with the Royal Australian Navy, which has close relations with the navies of many South-east Asian nations. The JMSDF hopes that the Australian navy can help it bridge historical gaps in relations—arising from the wariness in these countries caused by the bitter experience of World War II—between the JMSDF and Southeast Asian navies. Military-to-military exchanges developed rapidly in those years, as a part of the new international exchanges that arose in the post-Cold War era, so the establishment of a close relationship with the ROKN had become a serious and urgent issue for the JMSDF. For all these reasons, I, as an official responsible for JMSDF policy in MSO, proposed to meet with my counterpart in the ROKN as a preliminary measure.

Because our meeting was held before the start of official exchanges, and because we did not know each other, the atmosphere was awkward at first. However,

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\* All abbreviations used in this article are expanded in the sidebar on page 16.

as time passed, we gradually became friendly, finding that we had much in common as sailors. A number of exchanges followed fairly quickly, and in the years since then the relationship between the two navies has deepened. Still, the history of this official relationship between the JMSDF and the ROKN is very short—only about ten years—when one considers the geographical proximity between the two nations; true mutual understanding has yet to mature. Much can still be done to bring the JMSDF and ROKN closer together.

It is for that reason, and from that perspective, that I, as a former leader of the Japan Maritime Self-Defense Force, would like here to examine comprehensively the Republic of Korea Navy. I will discuss the whole service, except for (though they are officially part of the ROKN) the ground forces of the Republic of Korea Marine Corps.

### WATERBORNE FORCES IN ANCIENT KOREA

The history of maritime armed forces in the Korean Peninsula originates with those that fought during the unification of the peninsula. The chronicles of the Three Kingdoms of Korea—Baekje, Goguryeo, and Silla—record the activity of these waterborne forces. For a typical example, in the latter half of the fourth century, King Kwanggaeto of Goguryeo attacked and conquered Baekje by effective use of naval forces.<sup>1</sup> His conquest is remembered today in the name of the first ship of the KDX-I destroyer class—*Kwanggaeto Daewang* (Kwanggaeto the Great).<sup>2</sup>

When the Mongolian Yuan dynasty, which had conquered China and central Eurasia, invaded the Korean Peninsula in the mid-thirteenth century, the Goguryeo dynasty evacuated its capital to Ganghwa Island, two kilometers off the coast. The sea forces of Goguryeo protected their island capital from fierce Yuan attacks for about thirty years. The Yuans, whose Mongolian cavalry was overwhelming on land, were poor at combat on the water; nonetheless, this success was a noteworthy event in the history of the waterborne forces of the peninsula.<sup>3</sup>

The next prominent event in Korean naval history was the successful protection of its coasts from Japanese pirates, known as the “Wa-ko,” whose lawless activities became significant in the late fourteenth and early fifteenth centuries. Korean forces protected the population and coastal villages from Wa-ko assault and later neutralized the pirate base in the islands of the Tsushima Strait, between Kyushu and the peninsula.<sup>4</sup>

In the late sixteenth century a Korean hero, Yi Sun-Shin, became an unforgettable figure in the history of the Korean Peninsula. Hideyoshi Toyotomi, who had emerged supreme after a century-long reunification war in Japan, twice sent huge expeditionary forces to the Korean Peninsula, as part of his strategic goal of

conquering the Ming dynasty of China; however, the Japanese forces were, in general, unsuccessful. Yi Sun-Shin interrupted the Japanese supply lines at sea several times, sometimes causing serious problems. In 1598 Hideyoshi suddenly died, and the Japanese forces started to withdraw. Taking full advantage of this change of tide, Yi Sun-Shin, together with Ming naval forces, attacked a retreating Japanese convoy off the coast of the peninsula. He made good use of intelligence, local topography (marked by islands and narrow straits), tactics (especially surprise attack and separation of the enemy), and equipment (such as “turtle ships,” which were heavily protected by iron armor casements of a turtleback shape) and finally defeated the sea forces of Japan. The Korean-Chinese combined force reportedly sank two hundred out of five hundred Japanese ships, putting an end to a seven-year-long war on the Korean homeland.<sup>5</sup> The tragic loss of Yi Sun-Shin in the final action made him a true hero—a man who saved the Korean nation at the cost of his life. Even today, the Koreans respect him as a savior of their country. To commemorate his achievement, the lead ship of KDX-II destroyer class was named *Yi Sun-Shin*.

#### THE FOUNDING OF THE ROKN: THE IMPACT OF THE KOREAN WAR

On 11 November 1945, soon after the end of World War II in the Pacific, a merchant mariner, Son Won-Il, established the Maritime Affairs Association, which later developed into the Korean Coast Guard. With the establishment of the ROK government on 15 August 1948, the coast guard was renamed the Republic of Korea Navy, with Son as its first Chief of Naval Operations. Of the four services of the ROK Armed Forces, the navy has, accordingly, the longest history. (In 2007 the first of the ROKN’s cutting-edge Type 214 submarines was named *Son Won-Il*, after this father of the South Korean navy.)

The Korean War erupted with a surprise attack and invasion by North Korean forces in June 1950. The ROKN participated in the fighting that followed, together with the navies of the United Nations coalition. Maritime operations in this war were exclusively in favor of the UN forces; the North Korean navy had only a coastal capability, whereas the UN naval forces, with elements of the U.S. Navy at their center, had overwhelming power.

At that time, the ROKN was not yet able to wage modern maritime warfare beyond coastal seas; it was still too immature, the outbreak of the war having come immediately after its establishment. The personnel strength of the ROKN was about seven thousand, to the North Korean navy’s estimated fourteen thousand.

*Continued on page 17*

## ABBREVIATIONS

AMS	auxiliary minesweeper
AO	auxiliary oiler
AOR	auxiliary replenishment oiler
APD	auxiliary personnel transport destroyer
ARL	auxiliary repair light
ARS	auxiliary rescue/salvage ship
ASR	auxiliary submarine rescue ship
ASROC	antisubmarine rocket
ASUW	antisurface warfare
ASV	antisurface vessel; antisurface vehicle [e.g., Lynx helicopter]
ASW	antisubmarine warfare
CVSG	aircraft carrier strike group
DD	destroyer
DDG	guided-missile destroyer
DE	destroyer escort
FAC	fast attack craft (gun)
FFG	guided-missile frigate
FFS	fast frigate, small
FRAM	Fleet Rehabilitation and Modernization
FS	frigate, small
FSG	guided-missile frigate, small
JML	Japanese minelayer
JMSDF	Japan Maritime Self-Defense Force
KDX-I	first generation of destroyers designed and built in South Korea
KDX-II	second generation of destroyers designed and built in South Korea
KDX-III	Aegis DDG, third generation of destroyers designed and built in South Korea
KSS	Korean midget submarine
LPD	landing platform, dock
LSM	landing ship, medium
LSMR	landing ship medium, rocket
LSSL	landing ship support, large
LST	landing ship, tank
MCM	mine countermeasures
MHC	minehunter, coastal
ML	minelayer
MSC	minesweeper, coastal
MSO	Maritime Staff Office [JMDSF]
PC	patrol craft (submarine chaser)
PCE	patrol craft, escort
PCF	patrol craft, fast
PCS	patrol craft, sweeper
PF	patrol frigate [World War II construction]
PG	guided-missile patrol boat
PKM	patrol killer boat, medium
PLA	People's Liberation Army
PT	patrol torpedo boat
ROK	Republic of Korea
ROKN	Republic of Korea Navy
SLOC	sea line of communication
SMG	Strategic Mobile Group
SS	conventionally powered [diesel-electric] attack submarine
SSN	nuclear-powered attack submarine

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With regard to large combatant ships, the ROKN had in 1951 only two outdated, World War II–vintage patrol frigates capable of operations on “blue water”—that is, on the high seas, away from home waters. Beyond these two ships, there were only about ten coastal minesweepers of U.S. and Japanese build, as well as ten small patrol craft (see table 1).

**TABLE 1**  
**ROKN STRENGTH IN 1951 (MAJOR COMBATANTS)**

PF	2	U.S.-built, 1,500 tons
PC	4	U.S.-built, 1,300 tons
AMS	13	U.S.-built, 300 tons, wooden coastal minesweeper
JML	10	Details unknown, minelayers of the Imperial Japanese Navy
LSSL	2	U.S.-built, 230 tons
Others	Japanese-left gunboats (22), former Japanese coastal patrol crafts (8), self-propelled oil barges, tug-boats, and various service craft	

Source: All numerical data in the charts in this article are from the *Jane’s Fighting Ships* of each year. The type designations (DD, SS, PGM, etc.), which vary in successive editions of *Jane’s*, are the author’s own. See the sidebar for a legend.

In spite of these handicaps, the ROKN took great pride, and found a strong spiritual foundation, in the fact that though the smallest service in the South Korean Armed Forces, it had engaged in combat with great courage and effectiveness in the war’s most difficult period, the first years after the state’s establishment.<sup>6</sup> The highest operational command billet—Commander in Chief, ROK Fleet—was established in September 1953, soon after the armistice agreement was signed in July.<sup>7</sup>

**1960 TO THE EARLY 1980S: LAYING THE “BEDROCK”**

Over the next two decades, the ROKN continued to build its fleet as a main pillar of deterrence against invasion by North Korea, in full compliance with its national defense commitments under the ROK-U.S. alliance. At that time, because of the nature of the South–North confrontation, the nation had no other option than to emphasize building up the army. The core of the ROK fleet comprised surface ships given by or rented from the U.S. Navy (see table 2).

Around 1960, the ROKN beefed up the numbers of both DEs and PFs and increased its force of patrol boats, such as PCs. Additionally, the navy rapidly reinforced its amphibious-warfare ships, including LSTs. The ROKN was trying to improve its capabilities in coastal defense against small craft from the North, and in amphibious warfare, which would provide South Korean ground forces operational flexibility in case of invasion.

**TABLE 2**  
**ROKN STRENGTH 1960–80 (MAJOR COMBATANTS)**

	1960	1970	1980
Total Personnel	16,600	16,600	20,000
DD			5 U.S.-built, 2,500 tons
DD			2 U.S.-built, 2,200 tons
DD		3 U.S.-built, 2,000 tons	3
DE	2 U.S.-built, 1,500 tons	2	
DE		1 U.S.-built, 1,500 tons	1
PF	4 U.S.-built, 1,500 tons	4	
PCE		3 U.S.-built, 900 tons	3
PC	4 U.S.-built, 650 tons	8	
PC	5 U.S.-built, 300 tons	4	
PCS		2 U.S.-built, 250 tons	
APD	1 U.S.-built, 1,400 tons	6 (ex-high-speed transport)	
PT	3 U.S.-built, 30 tons		
PG			8 U.S.-built, 250 tons 4 Korean-built
PG			1 U.S.-built, 250 tons
PKM			6 Korean-built, 80 tons
MSC	3 U.S.-built, 320 tons	6	8
AMS	10 U.S.-built, 300 tons	5	
LST	8 U.S.-built, 1,600 tons	8	8
LSMR		1 U.S.-built, 1,000 tons	1 (ex-LSM with rockets)
LSM	12 U.S.-built, 800 tons	11	11
LSSL	5 U.S.-built, 230 tons		
ARL		1 U.S.-built, 2,400 tons	1 (ex-LST repair ship)
AO	1 Norwegian-built, 1,400 tons	1	1
Others	Patrol crafts, self-propelled oil barges, tugboats, and various service crafts		

*Source:* The official personnel strength of ROKN is not available in open sources like *Jane's*. The total number of personnel in the ROKN used in the charts was calculated by subtracting ROK Marine Corps strength from the sum of the “active duty service members” and “draftees” given in *Jane's*.

In about 1970, the ROKN introduced U.S. Navy *Fletcher*-class destroyers, which, though already obsolete, were superior in surface combat capability, with their five-inch guns, to what the navy had possessed in the past. In addition, the ROKN steadily introduced new patrol craft. As a result, deterrence was strengthened against the North Korean navy, which was estimated to be good at small-craft operations. In regard to amphibious ships, the ROKN by 1970 still had the same strength as in 1960; apparently it had achieved its goal at this point as far as the number of landing ships was concerned.

In the late 1970s and early 1980s, the ROKN received from the U.S. Navy a number of *Gearing*- and *Allen M. Sumner*-class destroyers that had gone through the American Fleet Rehabilitation and Modernization (FRAM) program.<sup>8</sup> As a result, the operational capability of the ROK fleet jumped. However, the ASROC (antisubmarine rocket) system, which was one of the centerpieces of the FRAM modernization of these still-capable World War II-era destroyers that were retained in U.S. service, was not installed on the units transferred to the ROKN.

Perhaps at this time the ROKN preferred to improve its capability in surface combat rather than that in ASW. If so, a reason might have been that Western navies at that time estimated the threats posed by North Korea to be

- Sea denial against U.S.-led naval forces, by submarine force and mines
- Confusion, spread by special operations forces
- Surprise assault landings, by large numbers of small landing craft and boats.

However, the most likely reason for a strong emphasis on surface combat instead of ASW is that the South Korean navy put more focus on the second and third of these threats than on the first. The ROKN might have based such an assessment on an internal evaluation based on shared national origin—that is, on unique insight, unavailable to analysts of other navies—of the operational capability of the North Korean navy.

In this period the ROKN decommissioned old U.S.-built ships that it had used since its founding. At the same time, it replaced obsolete patrol boats with new guided-missile patrol craft and small patrol boats, built by the Tacoma Shipyard in the United States. In addition, some PGs were built in-country. In this way the ROKN improved its capability in the area of coastal operations by small patrol craft.

In contrast, however, the buildup of the mine-warfare and MCM forces, including coastal minesweepers, was slow. Apparently, the ROKN was uninterested in building up its MCM force. The South Korean navy was similarly



uninterested in underway logistics; it purchased only one large oiler, from Norway. The main mission of the navy in this period was still coastal defense, not blue-water operations.

In these years the Republic of Korea participated in the Vietnam War, with the ROKN deploying transport ships to the South China Sea. In home waters, on 19 January 1967 a U.S.-built PCE was sunk in the Sea of Japan north of the Military Demarcation Line by North Korean shore batteries.<sup>9</sup> In June 1970, an ROKN vessel that had been broadcasting propaganda to the North was captured by a North Korean patrol craft.<sup>10</sup>

During the 1970s, the administration of President Pak Chung-Hee developed and announced an “eight-year national defense plan” intended to build a self-reliant national defense capability.<sup>11</sup> On the basis of this plan, the ROK started to construct a fleet using its domestic technology and industrial resources. Noteworthy products of this plan were the *Ulsan*-class frigates, with displacements of two thousand tons, and the *Pohang*-class corvettes, of one thousand tons. The ROKN eventually constructed, respectively, nine and twenty-four of these types, which have been regarded as the workhorses of the fleet in coastal operations. Since then, the ROKN has constructed almost all of its own major combatants, at several shipyards.

### LATE 1980S–2000: STABILIZATION, THEN RAPID ADVANCE

In the latter half of the 1980s modernization became conspicuous, with the introduction of new equipment, state-of-the-art technology, and new ships of domestic construction (see table 3).

**TABLE 3**  
**ROKN STRENGTH 1980–2000 (MAJOR COMBATANTS)**

	1980	1990	2000
Total Personnel	20,000	35,000	40,000
SS (209)		1 German-built 2 Korean-assembled	8 Korean-built after fourth boat
KSS		6 Korean-built, midget submarines	11
KDX-1 (11)			3
DD	5 U.S.-built, 2,500 tons	7	5
DD	2 U.S.-built, 2,200 tons	2	
DD	3 U.S.-built, 2,000 tons		

**TABLE 3 CONTINUED**  
**ROKN STRENGTH 1980–2000 (MAJOR COMBATANTS)**

	1980	1990	2000
DE	1 U.S.-built, 1,500 tons		
FFG		7 Korean-built, <i>Ulsan</i>	9
FS/FSG		18 Korean-built, <i>Pohang</i>	24
FS		4 Korean-built, <i>Dong-Hae</i>	4
PCE	3 U.S.-built, 900 tons		
PG	8 U.S.-built, 250 tons 4 Korean-built	8	5
PG	1 U.S.-built, 250 tons	1	
PKM	6 Korean-built, 80 tons	36 <i>Sea Fox</i>	
PCF		32 <i>Sea Dolphin</i>	54
PCF		2 <i>Wildcat</i>	47
ML			1 <i>Wonsan</i>
MSC/MHC			1 <i>Yangyang</i>
MHC		3 licensed production, <i>Swallow</i>	
MSC	8 U.S.-built, 320 tons	8	8
LST	8 U.S.-built, 1,600 tons	8	6
LST			4 <i>Alligator</i>
LSMR	1 (ex-LSM with rockets)		
LSM	11 U.S.-built, 800 tons	7	3
ARL	1 (ex-LST repair ship)		
AO	1 Norwegian-built, 1,400 tons		
AOR			3 <i>Chunjee</i>
ASR			1 <i>Chunghaejin</i>
ARS		2 U.S.-built, 1,500 tons	2 U.S.-built, 3,000 tons
Others	An oceanographic research ship, a variety of auxiliary ships, and various service craft		

The ROKN selected the German-developed Type 209 submarine for its first-generation submarine (known as the *Chang Bogo* class). The navy imported the first boat; the South Korean shipbuilding industry assembled the second and

third boats; and the fourth was built in-country, from keel laying to final fitting-out. By this means, the ROKN, which had started its submarine force from nothing, paved the way to a real undersea-warfare capability—establishing training procedures for the crews, developing operational concepts, and learning the technology needed for building diesel-electric submarines.

Additionally, while introducing the new SSs, the ROKN planned to establish a submarine-rescue posture, indispensable for a submarine-operating navy. To this end the navy introduced two submarine-rescue ships from the U.S. Navy and ordered a Korean-built unit, *Chunghaejin*, along with the other measures necessary to realize an appropriate and viable submarine-rescue capability.

As for destroyers, the ROKN seems to have set itself a goal of about ten DDs that were superior in surface combat power to those of the North. In this period it replaced six of eleven old, U.S.-built destroyers with three KDX-I units (the *Kwanggaeto Daewang* class), trading a reduction in the total number of units for improved capability.

Furthermore, the ROKN replaced its diverse collection of U.S.-built patrol boats and craft with a force made up of two types, the *Ulsan* frigates and *Pohang* corvettes. This improved not only practical operational capability but also rationalized education, training, and logistic support. In other words, the Navy made a successful transition from a posture of many types with a few ships each to the one with a few types with many ships each.

In general, and though the number of destroyers dropped, the operational capability of the ROK fleet, focused as it was on coastal defense against the North Korean navy, apparently reached the level that the ROKN had envisioned. With respect to ASW, however, it was inadequate, even after the introduction of the three KDX-I destroyers and the Lynx helicopter. The ASW posture of the ROKN still remains questionable today, in relation to the perceived threat of North Korean submarines and the geopolitical nature of the country. Where the ROKN had once depended heavily on U.S.-built small patrol craft, in the 1980s and 1990s it made rapid progress in producing its own vessels, building a large number of domestically developed *Sea Dolphin*-class and *Wildcat*-class PCFs. A buildup of the defenses of South Korean territorial waters was continually required, even “demanded,” of the ROKN by clandestine intrusions of North Korean boats and small craft, which had continued ever since the war.

We can see in these facts a consistent ROKN policy toward the stark realities of South–North confrontation and East–West rivalry that faced it—that is, friction and tension on the peninsula against the background, in the first part of the period, of the Cold War and then of the unstable post–Cold War international order that followed. Judging from statistics, the ROKN needed about a hundred PCFs, including small PKMs (the *Sea Fox* class), to take proper measures against

clandestine intrusion attempts from the sea and suspicious boat movements off both coasts of the peninsula. In June 1999, for instance, a conflict occurred between small craft of the South and North near the Northern Limit Line off the west coast of the peninsula. In June 2002 another engagement, including an exchange of fire, occurred in the same waters; the ROKN lost a patrol craft, *PKM-357*.

A heavy burden was thus imposed on the ROKN by the nation. In contrast, the JMSDF is relatively free of this burden, partly because larger distances reduce the small-boat threat, and partly thanks to Japan's coast guard. This difference underlies clear contrasts that can be seen in the force-planning assumptions of these two neighboring navies.<sup>12</sup>

In the area of amphibious warfare, the South Korean navy decommissioned in these years a large number of U.S.-built LSTs and LSMs. It filled the gap with four domestically built, higher-performance LSTs of the *Alligator* class. As for MCM ships, the navy introduced a minelayer, *Wonsan*, and several *Yangyang*-class MSCs/MHCs, together with *Swallow*-class MHCs. Finally, the ROKN saw some improvement in its MCM operational capabilities; however, progress was still slow. At the end of this period, three Korean-built, *Chunjee*-class AORs, which could steam with surface forces at high speed, were introduced to the fleet. This improved substantially the fleet's capability to support operations on the high seas.

In the last two decades of the century, specifically in the late 1990s, modernization in the ROK fleet, both in quality and quantity, was conspicuous. This trend was supported by a noteworthy change-of-command speech of the twentieth Chief of Naval Operations, Admiral Ahn Byung-Tae, who made it clear that the ROKN would aim to become a blue-water navy.<sup>13</sup>

#### THE PRESENT: REALIZING THE GOAL OF A BLUE-WATER NAVY

The ambitious force buildups of the 1990s seem to have given the Republic of Korea Navy sufficient operational defenses in coastal and regional waters against the periodic, unpredictable attempts of the North Korean navy. Meanwhile, the South Korean state and people have developed strong national interests beyond the northwest Pacific region, especially in extensive trade with foreign nations and in the sea lines of communications over which that trade is carried. The South Korean navy has, accordingly, established a basis for a distant-operations capability of which it had long dreamed; it is safe to say that quest continues today. The progress of the ROKN toward a blue-water fleet merits the attention of other navies in the region, even the rest of the world (see table 4).

As for submarines, the ROKN has started to construct the *Son Won-Il* class, the new German-developed Type 214, with air-independent propulsion. The U.S.-built DDs have now disappeared from the fleet, and the ROKN has started

**TABLE 4**  
**ROKN STRENGTH 2000–2008 (MAJOR COMBATANTS)**

	2000	2008
Total personnel	40,000	41,000
SS (209)	8 (Korean-built after fourth boat)	9
SS (214)		1
KSS	11 Korean-built, midget submarines	11
KDX-I	3	3
KDX-II		4
KDX-III		1
DD	5 U.S.-built, 2,500 tons	
FFG	9 Korean-built, <i>Ulsan</i>	9
FS/FSG	24 Korean-built, <i>Pohang</i>	24
FS	4 Korean-built, <i>Dong-Hae</i>	4
PG	5 U.S.-built, 250 tons + 4 Korean-built	
FAC	54 Korean-built, <i>Sea Dolphin</i>	83 (total number of FACs)
FAC	47 Korean-built, <i>Wildcat</i>	
ML	1 Korean-built, <i>Wonsan</i>	1
MSC/MHC	1 Korean-built, <i>Yangyang</i>	3
MHC	6 licensed production, <i>Swallow</i>	6
MSC	8 U.S.-built, 320 tons	
LPD		1 Korean-built, <i>Dokdo</i>
LST	6 U.S.-built, 1,600 tons	2
LST	4 Korean-built, <i>Alligator</i>	4
LSM	3 U.S.-built, 800 tons	
AOR	3 Korean-built, <i>Chunjee</i>	3
ASR	1 Korean-built, <i>Chunghaejin</i>	1
ARS	2 U.S.-built, 3,000 tons	2
Others	Patrol boats, oceanographic research ship, and various service craft	

six KDX-IIIs (the *Chungmugong Yi Sun-Shin* class) and three KDX-IIIs (*Sejong Daewang* class), almost in parallel. The KDX-III is equipped with the latest Aegis combat system. By the time this program is completed, the ROK fleet's destroyer

force will reach the level of the leading navies of the world. With respect to small, fast patrol boats, the ROKN has kept its strength at around eighty units, a number achieved by 2000. These boats have remained in frontline service, with the main mission of the coastal defense, together with the larger *Ulsan* and *Pohang* ships. However, it is about time for the ROKN to start planning for their replacements; these large and small patrol units will soon be reaching the ends of their service lives.

For amphibious warfare, the South Korean navy has one LPD, *Dokdo*, and four *Alligator*-class LSTs. Only two of the old U.S.-built LSTs remain today. The ROKN has also introduced high-speed air-cushion landing craft, which are expected to improve the capability of the amphibious force in terms of quality; meanwhile, the service seems to be reviewing the strategic concept of its amphibious force and accordingly the number of landing ships it requires.

Underlying all this activity may be an ROKN strategic estimate that South Korea has substantially surpassed North Korea—thanks to the country's overwhelming economic growth in recent years—and that the capability and possibility of all-out, full-scale invasion into the South by the North are extremely low. The navy apparently also thinks that the ROK military, together with U.S. forces, could surely interdict and repel such an invasion, except in a nuclear scenario. The buildup of the amphibious force in quality at the expense of quantity may reflect such an estimate.

Also, one aspect of the amphibious program can be seen as a fresh approach to the international situation. The ROKN is now fully aware of the new missions of international contribution and cooperation, such as peacekeeping and humanitarian-assistance and disaster-relief operations. The South Korean navy learned a vital lesson from bitter experience when it found itself unable to participate sufficiently in the multinational relief operations on northern Sumatra, in Indonesia, after the earthquake and tsunami in December 2004. Memories of this episode may well be reflected in multirole amphibious ships projected for the future.

In the area of mine warfare, the ROKN has decommissioned all eight of its outdated U.S.-built MSCs. Its new mine-countermeasures force is composed of three *Yangyang*-class MSCs/MHCs and six *Swallow*-class MHCs, all of domestic construction but carrying new, foreign-developed MCM equipment. The South Korean navy has apparently improved the quality of its MCM force, but its quantity seems not yet sufficient for the current security and military situation around the peninsula. In the realm of underway replenishment, which is indispensable if the ROKN is to become a real blue-water navy, the ROK fleet has its three domestically built *Chunjee*-class AORs. These three replenishment oilers seem to meet the operational requirement today.

With respect to the naval aviation, the ROKN has replaced its old S-2 maritime surveillance and patrol aircraft with new P-3Cs. Thanks to these new aircraft, the ocean-surveillance capability of the ROK fleet has substantially improved; however, only eight P-3Cs are now in the inventory. Otherwise, the navy is introducing new multimission Lynx helicopters, useful for antisurface and antisubmarine warfare. The strength of the Lynx helicopter force, which numbers twenty-five today, seems enough for shipboard operations on board the new KDXs and for land operations (see table 5).

**TABLE 5**  
**NAVAL AVIATION 1990–2008**

	1990	2000	2008
P-3C maritime surveillance and patrol		8	8
S-2A/F maritime surveillance and patrol		8	8
Lynx helicopter (ASV)	12	17	12
Lynx helicopter (ASW)		13	13
F-406 (fixed-wing small-size at-sea surveillance aircraft)		5	

With regard to the growing trend toward a navy capable of operations in distant waters, two important new initiatives were taken by the present Lee Myung-Bak administration in 2009. In March, the government authorized ROKN participation in international antipiracy operations in Gulf of Aden; in May, South Korea became the ninety-fifth nation to join the Proliferation Security Initiative. These decisions clearly show the government's intention to make the Republic of Korea a nation of greater international responsibility and influence. They also show its determination to use its capable navy as a tool to realize national objectives. The ROKN today seems to have sufficient capability to support and respond fully to the growing expectations and requirements of its nation's government and people.

#### TO THE FUTURE

The Republic of Korea Navy's recent emphasis on the construction of a blue-water navy is understandable if its perception of the threat has in fact changed from that of previous years. As implied above, the military capability of North Korea to fight a conventional, full-scale war against the South seems to be declining. However, the North is still capable of small but determined intimidating or trap-setting operations along the coast of the peninsula.

*Missions/Resource Allocation: Coastal Defense and Blue-Water Operations*

The South–North confrontation still continues, against the background of an unchanging geopolitical and strategic environment defined by the close proximity of such powerful nations as China, Russia, and Japan. Accordingly, the ROKN has made coastal defense its main mission since its foundation, and it may have to do so for the foreseeable future.

The question, then, becomes: How can the South Korean navy improve its blue-water capability—which is its strongly held goal, perceived as the mark of a mature navy—and at the same time protect the nation's coasts? The tempo of distant operations will surely continue to grow in the future, but an appropriate balance will have to be maintained—not an easy job for the strategic thinkers and force planners of the ROKN. Beyond that, every country has only finite resources, especially in terms of budget. The course the Republic of Korea Navy chooses to take through these obstacles and challenges will be of much interest to regional navies.

*Antisubmarine Warfare*

Three factors (strategic, tactical, and geopolitical) bearing upon South Korean ASW must be taken into consideration, and they lead clearly to an overall conclusion, or implication.

First, the ROKN's present ASW assets—twelve destroyers, of three types; two dozen Lynx helicopters, and eight P-3Cs—are not sufficient. Second, the region's unique geography and oceanography make for a highly complex and difficult ASW environment, one requiring special consideration and measures. The Korean Peninsula is, by definition, surrounded with water on three sides. The mountainous east coast faces the deep and steeply shelving Sea of Japan. To the south a complicated coastline, with scattered small islands and two large ones farther out to sea (Tsushima and Cheju), faces the east and west channels of the Tsushima Strait, which in turn connects the Sea of Japan and the East China Sea. The west coast is also complicated, but its topography is relatively flat; it abuts the northern part of the East China Sea and the Yellow Sea, which is shallow for long stretches and where a great tide differential exists. Third, the navies of all the neighboring nations—Russia, China, Taiwan, and Japan—as well as that of the United States, an allied partner of South Korea, operate submarines in these waters.

The conclusion is that the ASW capability of the ROKN plainly requires improvement in both quality and quantity.

Quite aside from the threat posed by North Korean submarines (most of which are obsolete), the need to collect subsurface information on surrounding waters and on deployed submarines of other navies makes ASW capability for



the ROK fleet a precondition of status as a navy capable of distant operations. The ROK-U.S. alliance, with the intelligence exchange it brings, could be of some help in this context, and certainly the possibility is very small that South Korea will go to war with any of these nations; nevertheless, the navy must establish its own comprehensive ASW capability, built around adequate ocean surveillance capabilities.

Additionally, of course, credible tactical ASW capability—search, detection, tracking, identification, and attack, as well as postattack analysis—has real significance to the ROK fleet today. In fact, a sufficient ASW capability, supported by underwater surveillance, is a must, a prerequisite for combined operations under the ROK-U.S. alliance with the American carrier strike groups that would be deployed in a contingency on the Korean Peninsula or in the northwest Pacific. Also, should a crisis occur involving Japan, a CVSG responding under the Japanese-U.S. alliance would operate in the same waters as it would in a Korean crisis per se; the ROKN could not be indifferent to that. In any case, and in any grave contingency, the protection of an American CVSG operating around the peninsula or in the northwest Pacific from all kinds of threats, in particular submarines, would become the most important mission of the ROK fleet. In this respect especially, antisubmarine warfare, especially underwater surveillance and a strong tactical capability, has great significance for the South Korean navy.

### *Submarines*

Today, the ROKN has a robust submarine force composed of nine Type 209 and several (eventually nine) Type 214 boats. However, the navy's strategic objectives and operational concepts for its capable submarine force are not clear, at least from the viewpoint of some foreign experts. In other words, they would ask: How and against whom would the ROKN use its capable submarines? A tactical question also remains unanswered: "Would the main task of its submarines be antisubmarine or antisurface warfare?"

If the answer is ASW, the current composition of the ROK fleet seems rather unbalanced. The strength of the submarine force is disproportionately high in comparison to that of other antisubmarine assets, such as destroyers, maritime patrol air, and helicopters. The buildup of the submarine force has been too quick; too many submarines now exist but too few platforms of other kinds.

But maybe the answer is ASUW, and that would be understandable, given that the most important historical mission of ROKN has been defense of coastal waters against covert operations by small surface craft from North Korea. However, the submarine seems generally unsuitable for this type of ASUW. In light of the importance of ASW capability, the ROKN may have been building its forces in a way incompatible with its historical position and security needs. That is, if it

takes seriously the country's peninsular geopolitical character and what cooperation as a fully reliable partner in the ROK-U.S. alliance requires, it may now have to strengthen and improve its ASW capability in general, and in particular, to achieve the best possible underwater situational awareness.

This view is contradicted by a theory now current in China, where submarine development is a subject of debate. One school of thought in the PLA Navy takes the operations of British SSNs during the Falklands War, in 1982, as an model for sea control in distant waters. In this view, the point is the high speed and long endurance of the Royal Navy's SSNs, which made it possible for the United Kingdom, a nonglobal power lacking a large network of overseas naval bases, to gain sea control in a remote and distant operational area—the waters around the Falklands.<sup>14</sup> The attractiveness of this theory to navies like that of China is understandable, but the Chinese rationale raises a further point, a strategic one—the antisurface (that is, tactical) capability of submarines. In the Falklands War a British nuclear-powered submarine, HMS *Conqueror*, attacked and sank a World War II–vintage Argentine cruiser, *General Belgrano*. The Argentine navy's surface operations ceased totally, and eventually Argentine maritime operations of all kinds against British forces were substantially contained. With this single submarine operation, the Royal Navy had gained sea control around the Falklands. In other words, a tactical action by an SSN—a torpedo attack against a surface ship—gained an unexpected strategic advantage, by establishing regional, but total, sea control.

Many navies—notably the Imperial Japanese Navy, the U.S. Navy, and the Royal Navy itself—have made every effort, over the entire course of other wars, to achieve such a capability, regardless of casualties or damage to themselves, and yet have failed. Gaining such a strategic advantage is the very *raison d'être* of an armed force, the goal of its nation and people in wartime, the pride of its servicemen and women. Nonetheless, many navies have looked for a key to the true significance of submarines in the single success of HMS *Conqueror* in the Falklands.

If the ROKN planners dare instead to seek the strategic significance of conventional submarines in the sea surrounding the Korean Peninsula, taking full account of the limitations of diesel-electric-driven boats, they will have established a good basis for future naval operations and strategy. There are indications suggesting that some answers may become clearer in the near future.

### *Wide-Area Ocean Surveillance*

The ROKN has been continuously modernizing its fleet, but its wide-area ocean-surveillance capability—which is indispensable to both coastal defense and blue-water operations—does not look sufficient at present. If the navy is to achieve these two main missions, it will be necessary to collect and plot precise

surface and subsurface information and intelligence. It is fundamentally important that the ROKN be able to collect information on the three maritime environments, with strikingly different characteristics, that surround it. The ROKN has built robust and capable submarine and destroyer forces, which constitute between them the core of the practical combat power of the fleet—in figurative language, its “spear.” However, the navy has yet to improve the wide-area ocean surveillance that it must develop in order to point and thrust this spear. It has already been announced that the ROKN plans to double the number of its P-3Cs, to sixteen, in the near future. However, two questions remain: What is the plan for a wide-area ocean-surveillance capability that meets the real operational and strategic requirements of the Korean nation and its navy? And what is the target date for its completion?

### *MCM Capability*

Some people might consider the mine-warfare resources of the ROKN modest. But in a contingency on the Korean Peninsula, mine warfare, especially mine countermeasures, would be pivotal for the coastal defense of both the east and west coasts of the country. In addition, it would be crucial to secure SLOCs in the Tsushima Strait, which connect the southern part of the ROK with Kyushu, the closest of the four main islands of Japan to the Korean Peninsula, where most logistic supplies for military operations on the peninsula would be collected, stored, and transshipped. So, safe navigation of the Tsushima Strait is indispensable to the ability of both ROK and American forces to fight and sustain themselves, and to the U.S. alliances with both South Korea and Japan. The ROK fleet should be prepared to clear all possible mine threats in at least the strait’s western channel; perhaps the JMSDF would clear the eastern channel.

In reality however, there is no agreement between the governments of Japan and the ROK to conduct combined military operations in case of any contingency in either of the two nations. It is true that the lack of a combined operational plan among the Japanese and ROK militaries has been one of most serious problems for regional security, especially in a contingency on the Korean Peninsula. Of course, it is not a purely military matter; a political decision by the two governments is needed to resolve this problem. However, apart from political issues between two governments, the Tsushima Strait will become a SLOC of strategic importance in case of a real-world contingency on the peninsula. In that case, under the sound bilateral policies that are expected to be established shortly, it is natural to presume that the JMSDF would take responsibility in the strait’s eastern channel—that is, the Japanese side, between the islands Tsushima and Kyushu. Similarly, the ROKN would take the western channel—the Korean side, between Tsushima and the peninsula—as

its area of responsibility. In this light, the present strength of the South Korean MCM force seems questionable.<sup>15</sup>

A new question therefore arises: How will the navy achieve a balance between its “spear” (its destroyers and submarines) and its MCM force? The answer to this question is not apparent now, but construction in the MCM force in the near future may show the strategic direction of the ROKN in this regard.

### *The Strategic Mobile Fleet/Strategic Mobile Group*

In 2001, the administration of then-president Kim Dae-Jung announced a plan for building a “Strategic Mobile Fleet” in order to achieve “the protection of the national interests in the five oceans in the world and the contribution to the world peace.”<sup>16</sup> Later the plan was downscaled from a “fleet” to a “group,” of flotilla size. The first SMG is scheduled to be completed by 2010; according to the plan, it will be composed of the LPD *Dokdo*, some KDX-IIIs (Aegis DDGs), and six KDX-IIs.<sup>17</sup>

Additionally, a new naval base for this group is under construction on Cheju Island off the southern coast. The navy has announced that the mission of the SMG will be to gain sea control in the waters surrounding the Korean Peninsula.<sup>18</sup> The combination of amphibious assault ships, destroyers, and guided-missile destroyers—a mix of “L-ships” and “D-ships”—with their different operational requirements and characteristics, seems a little irregular for a group intended to establish sea control. In fact, the declared employment concept for this SMG—which resembles a small U.S. amphibious ready group with escorting destroyers—is a bit ambiguous. The question may naturally arise: What is the real objective of SMG? Is it amphibious warfare (that is, power projection) or sea control, or both?

This argument aside, however, the noteworthy point is that this SMG will be the first major tactical unit in the ROK fleet to focus on operations far from home waters. The final number of SMGs to be organized is a point worth watching.

## TWO POWERS DESTINED TO COOPERATE

The ROKN grew steadily at first, then rapidly in recent years, overcoming various difficulties and limitations. The navy has set as its first mission the protection of coastal areas, in light of the more than half-century of confrontation between South and North on the peninsula and also of its geopolitical relationships with the capable navies of nearby nations. The ROKN has endeavored to build up this capability, aware of its heavy responsibility to its country and the South Korean people.

Simultaneously, as the economic development has deepened the country's interdependence with foreign nations, the ROKN, like the nation itself, became acutely aware of the necessity to secure its national interests abroad. The importance to those interests of the security of the nation's SLOCs was fully recognized as well. Around the year 2000 the ROKN started to turn itself into a navy capable of operations far from home waters. Since then, the navy has aimed to meet the needs of both missions, coastal and distant, in its force planning, and as a result the ROKN has become one of the most notable navies in the region today. There seem to be many areas that could be improved and shortcomings to be resolved in the ROKN; no navy in the world is free from such problems.

Nonetheless—and fully recognizing the challenges and issues that exist—there are many areas in which the capable Japan Maritime Self-Defense Force and the emerging Republic of Korea Navy can cooperate in the future. With regard to the strategic viewpoints of the two navies, the most important factor for both the JMSDF and ROKN to understand is that a contingency on the Korean Peninsula could affect Japan and that a contingency in Japan could affect South Korea. The United States, having independent alliances with each country, will respond to any contingency involving either state. In such a case, it will expect the JMSDF and ROKN to cooperate and coordinate between themselves, fully respecting the present situation, current capabilities, and existing limitations and constraints of both navies. Conversely, inadequate cooperation will not only help the adversary in a specific contingency but also serve a third party in the region. In the worst case it would greatly damage the national interests of both nations, as well as those of the United States.

Without question, the more the ROKN develops as a blue-water navy, the more conscious it will become of the Japanese archipelago, ranging from the southernmost Yonaguni Island, immediately east of Taiwan, to Hokkaido and the northern territorial islands of Japan. If so, the geography and geopolitics of the region would make it natural for the South Korean navy to strengthen its relationship with the JMSDF. The converse is true for the JMSDF as well. The two nations, both formidable, regional maritime powers, are destined to cooperate, in the interest of their common values.

I have undertaken the analysis and evaluation of the development of the Republic of Korea Navy as a maritime defense expert and ex-JMSDF leader who was involved in the start of official exchanges between the two services. I have not hesitated to refer to the past, because the ancient history of the Korean Peninsula and the foundational era after World War II form collectively a strong basis for pride in the mind of South Korea's sailors, judging by my own experience with them. If we are to have a correct view of the ROKN, we must take into proper account not only visible equipment of the navy but the "invisible minds"

of its sailors. For that reason, the promotion of mutual understanding should be actively pursued by sailors of both the Japan Maritime Self-Defense Force and the Republic of Korea Navy, from the lowest to the highest levels. The mutual understanding they achieve will be the key to the lasting security of the region.

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#### NOTES

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1. Kim Yan-gi, *Monogatari-Kankoku-shi* [Korean History] (Tokyo: Chuokoron-Shinsha, 1989), pp. 123–24, 156.
2. “KDX” means “next-generation destroyer, designed and built in South Korea.” The KDX-1 class is the first generation of this group.
3. Kim, *Korean History*, pp. 241–45.
4. *Ibid.*, pp. 247–48.
5. *Ibid.*, pp. 266–73.
6. At the third session of navy-to-navy talks, held at MSO in January 2002, I (by then a rear admiral and director of Operations and Plans Department of MSO) was impressed by the high morale and strong pride exhibited by the ROKN representatives. They told me of this episode, which suggested the spiritual superiority of South Korean sailors in comparison to the members of the nation’s other services.
7. Republic of Korea Navy (English-language), [www.navy.mil.kr/english/main/main.jsp](http://www.navy.mil.kr/english/main/main.jsp) [hereafter ROKN website].
8. Gyrodyne Helicopter Historical Foundation, [www.gyrodynehelicopters.com](http://www.gyrodynehelicopters.com). The U.S. FRAM program was meant to extend, by five to eight years, the service lives of its World War II-era destroyers, which were still in the fleet inventory in large number in the 1950s and ’60s. The program was also intended to upgrade the ASW capability of many *Gearing*- and *Sumner*-class destroyers in order to cope with the rapidly growing Soviet submarine threat. Major new ASW systems installed on these DDs were the SQS-23 sonar, ASROC (antisubmarine rocket), DASH (the drone antisubmarine helicopter), and Mk-44 torpedo. It also replaced the electronic equipment of these ships with new radars and electronic warfare systems and thoroughly overhauled their propulsion plants.
9. ROKN website.
10. *Ibid.*
11. *Ibid.*
12. For example, the force strength of the JMSDF since 2000 has been about fifty DDs, sixteen SSs, twenty-five MCM ships, eighty P-3Cs, and eighty SH-60s. Of fast small craft for coastal operation, there are only six PGs. The JMSDF, which traditionally has laid relatively light stress on coastal defense, has been allocating most of its national resources instead to blue-water forces, especially ASW forces, which the JMSDF thinks indispensable for its SLOC defense and cooperation with U.S. carrier strike groups. In contrast, the strength of the ROKN in the early 2010s seems likely to remain at about twelve DDs, eighteen SSs, ten MCM ships, between eight and sixteen P-3Cs, twenty-five Lynx helicopters, and eighty to a hundred fast small craft of various types. This difference clearly points to the extremely heavy responsibility of the ROKN for its nation’s coastal defense.
13. In the fall of 1994, before the start of official exchanges like the navy-to-navy talks, the author (then a captain, deputy of the Plans and Policy Division of MSO) escorted then-vice admiral Ahn on a tour of the JMSDF’s Kure

District and the Etajima education and training complex. Vice Admiral Ahn, the commander in chief of the ROK fleet, was visiting unofficially, but I was a bit tense and nervous—it was a rare visit by a South Korean VIP, and I had to escort him alone. I was surprised to learn that Vice Admiral Ahn was quite familiar with the Imperial Navy and the JMSDF. Also, during the three-day trip his frank and honest personality gradually removed my tension. Shown around the headquarters and base facilities, including those of submarines, the Kure District, and Etajima (where the historic brick building of the Imperial Naval Academy still stood), the admiral was impressed by the legacy, both physical and intellectual, of the Imperial Navy to the JMSDF. During the return “bullet train” trip, he quietly but emphatically told me of his determination that the ROKN would build a submarine force and become a blue-water navy in the future, and of the necessity that it do so. By chance, this was just prior to his change-of-command speech. This encounter is one of the reasons why I, as a captain responsible for JMSDF policy, started

developing the idea of staff talks between the JMSDF and ROKN, which began three years later.

14. Andrew S. Erickson and Lyle J. Goldstein, “China’s Future Nuclear Submarine Force: Insights from Chinese Writings,” *Naval War College Review* 60, no. 1 (Winter 2007), pp. 55–79.
15. The practical strengths of the MCM forces of the two navies are in strong contrast. The JMSDF has two MLs/tenders, three ocean minehunters and minesweepers with deep-water MCM capability, and twenty-one coastal minehunters and minesweepers, as well as a squadron of MCM helicopters. For its part, the ROKN has one ML, three MSCs and MHCs, and six MHCs. This difference may generate serious strategic problems in securing the two channels of the Tsushima Strait in case of a peninsular contingency.
16. Global Security, [www.globalsecurity.org/military/world/rok/navy.htm](http://www.globalsecurity.org/military/world/rok/navy.htm).
17. ROKN website.
18. Ibid.



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